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hibited the model of another instrument, constructed by Mr. Nichols, for the division of an angle into any number of equal parts.

Professor Peirce also presented the computation of the orbit (elliptical) of Petersen's comet, made by young Safford, now thirteen years of age, showing its period to be 382,000 years. He stated that Safford was employed only fifteen hours in the computation.

Professor Peirce likewise made a communication, in which he gave reasons for his belief that all the comets seen by us are component parts of our solar system, drawn from the fact that their orbits are none of them decidedly hyperbolical. He showed that few comets could enter the solar system except in orbits of a manifestly hyperbolic form, derived from the motion of our system in space.

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**Three hundred and eighteenth meeting.**

April 4, 1849. — MONTHLY MEETING.

The PRESIDENT in the chair.

Mr. Everett read a letter from M. Leverrier, in relation to the discovery of the eighth satellite of Saturn. He also exhibited the comet-medal awarded by the king of Denmark to Miss Mitchell, which had just been received, and presented a printed copy of the correspondence which had been held in relation thereto.

Professor Peirce read a letter from Mr. S. C. Walker, containing a comparison of his ephemeris of Neptune with the latest observations on that planet, showing a variation from his calculations of only the fraction of a second. He also adduced further reasons for his opinion that the known comets belong to our solar system, drawn especially from the tendency of their orbits in respect to the plane of the ecliptic. His attention had been drawn to the obvious error of Laplace's argument upon this point by Dr. B. A. Gould, Jr.; who has made a

chart of the path of the orbits of the comets, which is conclusive in its exhibition of the relation of the comets to the solar system.

Dr. J. C. Warren and Dr. Channing continued a discussion which commenced at the last meeting, on the comparative merits and safety of ether and chloroform as anæsthetic agents.

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**Three hundred and nineteenth meeting.**

May 8, 1849. — MONTHLY MEETING.

The PRESIDENT in the chair.

The Corresponding Secretary presented a memoir from William S. Sullivant, Esq., entitled "Contributions to the Bryology and Hepaticology of the United States, Part II.," comprising the descriptions of several new or little known Musci and Hepaticæ, illustrated by figures.

Professor Agassiz gave a summary account of his investigations upon Medusæ. He has ascertained that their body consists entirely of cells, preserving in all the different systems of organs their character as true cells, and nevertheless performing very different functions. He showed that there is a complete system of bundles of elongated cells, arranged in longitudinal and transverse series, acting as muscles, and disposed in several layers, one being superficial and another lining the inner surface of the disk in Discophoræ, whilst some penetrate at various depths the gelatinous mass. The nervous system consists of a circular cord of oval cells, extending along the lower margin of the disk, from one eye-speck to the other, and forming a ganglion at the base of each. He also showed that the digestive system is naturally distinct from the tubes through which the digested food, mixed with water, is circulated, though at times they communicate directly with each other. This circulation — the arrangement of which he has ascertained by artificial injection — is very complicated in